

ABSTRACT OF THE DISCLOSURE

A rotary capping apparatus and feedback control apparatus for regulating torque applied to screw-on type caps for containers is disclosed. The present system is integrated into a machine suitable for a clean-room environment. The apparatus includes

5 a supporting frame whereon a computer-controlled driving mechanism including a servomotor for transmitting a predetermined torque to an inflatable gripping device actuated by compressed air for gripping and torquing such caps is provided. The inflatable gripper is imparted with automatic vertical height adjustment to accommodate containers of various sizes. The present rotary capping apparatus provides an integrated

10 closed loop feedback control system utilizing a computer for setting parameters for regulating the application of such torque and a servocontroller interfaced for bidirectional communication with the computer. The servocontroller generates an output signal to the servomotor based upon the position of the rotary capping apparatus for precise torquing of the caps onto containers. The rotary capping apparatus also incorporates automated

15 cap and container delivery mechanisms, which provide for synchronous advancement of the caps and containers to different stations within the machine for continuous processing.